THE UPS AND DOWNS OF A RENEWABLE PORTFOLIO STANDARD

by
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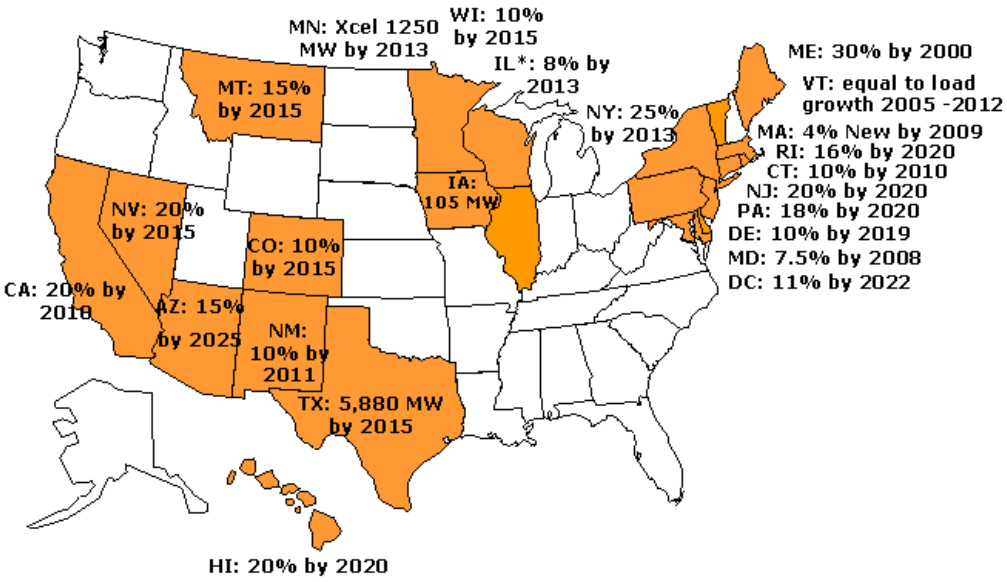
A Renewable Portfolio Standard (RPS) is a requirement that a certain portion of the electricity sold by utilities be generated from a renewable resource by a certain date. The standards as well as the definitions of renewable energy vary. Twenty-two states and the District of Columbia have set standards (see Figure).

A renewable energy technology does not rely on fossil fuels. It relies on an energy source that is naturally regenerated such as: sun light (solar), wind, elevated water (hydro), plants that will grow in a sustainable manner (biomass), or hot water trapped in the earth's crust that is or can be supplied continuously (geothermal).

Two other resources that are sometimes included as renewable resources are landfill methane and Municipal Solid Waste (MSW). Land fill methane is not strictly renewable as it is captured from old landfills that will eventually cease production. Most jurisdictions do not allow the combustion of MSW to count as a renewable resource, but will count gasification used to power a generation station or fuel cell.

States with Renewable Portfolio Standards Enacted



* IL implements its RPS through voluntary utility commitments

SOURCE: Pew Center for Global Climate Change[1]

Hydrogen (H_2) is sometimes included if it is produced using other renewable resources. Gasification

[1] URL: http://www.pewclimate.org/what_s_being_done/in_the_states/rps.cfm, accessed 11/2/2006.

of biomass by certain processes can yield a "synthetic natural gas" (syngas) that is over 50% hydrogen. Excess electricity generated by any of these means can be used to electrolyze water to H_2 and oxygen (O_2).

Some states allow utilities to comply with the RPS through Renewable Energy Certificates (REC). A REC represents one megawatt hour of renewable energy that is metered and verified from the generator.[2] RECs are created when the renewable energy project begins producing electricity. The electricity (green-power) is sold into the local electric grid and the RECs are sold as a commodity. The environmental attributes are unbundled from the physical electricity and the two products—the attributes embodied in the certificates and the commodity electricity—may be sold or traded separately. Even though REC definitions are not uniform, RECs are quickly becoming the currency of renewable energy markets because of their flexibility. RECs are not subject to the geographic and physical limitations of commodity electricity.[3]

There is no national renewable portfolio standard so the states are free to establish their own RPS standards, and the requirements are different. Each state typically features renewable energy sources that are plentiful in that state or region. "Northeast states uniformly include wood-fired and small hydro projects. Some northern and upper Midwestern states allow larger hydro projects. Midwestern states explicitly include agricultural-related biomass. Coastal states include tidal or wave power projects."[4]

At the present time Louisiana does not have a Renewable Portfolio Standard (RPS). The Louisiana Public Service Commission (PSC) studied the feasibility of implementing a RPS, but concluded that it would increase electricity costs and decided against it. The PSC commissioned a study of "green pricing" as an alternative.

The difference between a RPS and "green pricing" is that under an RPS the utility would have to supply a certain percentage of their power from renewable sources no matter what it cost, and the extra cost would be passed on to all customers in the fuel adjustment portion of the bill. Under the green pricing alternative the customer can elect to buy renewable energy, for a premium. The utility then contracts for only the amount of green power subscribed by those who have chosen it. It can be purchased as RECs or actual green power depending on the governing law. Most "green" residential electricity is sold in blocks of 100 or 150 kWhs each month. A home or business might contract for 6 "blocks" of renewables (900 kwhs) which they would pay for whether they used it or not. 100% renewable power is available in some jurisdictions. Most jurisdictions require a one year commitment by the consumer so that the utility can contract in advance. Longer term contracts at a fixed price are available in some areas. The premium charge varies from 1¢ to 6¢ per kWh and can either be applied in place of the fuel adjustment charge or in addition to the fuel adjustment and any other charges. Consumers in several areas with long term contracts are actually paying less for wind power than for electricity from conventional sources.

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[2] Charles G. Willing Jr. Esq., "Renewable Portfolio Standards Programs," *Distributed Energy*, May/June 2005.
[3] URL: http://www.eere.energy.gov/greenpower/resources/pdfs/37388.pdf, accessed 11/3/2006.
[4] Charles G. Willing Jr. Esq., "Renewable Portfolio Standards Programs."